

SM.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,984	08/30/2001	Susumu Takahashi	950088B	7633

23850 7590 01/07/2003

ARMSTRONG, WESTERMAN & HATTORI, LLP  
1725 K STREET, NW  
SUITE 1000  
WASHINGTON, DC 20006

EXAMINER

LEUBECKER, JOHN P

ART UNIT	PAPER NUMBER
----------	--------------

3739

DATE MAILED: 01/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/941,984

Applicant(s)

TAKAHASHI ET AL.

Examiner

John P. Leubecker

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,10-13,19,22,23,35-38,40,44,49-53,55,56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1,2,4,19,44,51-53,55 and 56 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 2, 4 and 19, drawn to a stereoscopic endoscope, classified in class 600, subclass 166.
  - II. Claims 44, 51-53, 55 and 56, drawn to a plural visual field direction endoscope, classified in class 600, subclass 173.

**\*\*** It is noted that claims 10-13, 22, 23, 35-38, 40, 49 and 50 depend from canceled claims and thus could not be included in the requirement.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not capable of use together (one provides converging optical axes and the other diverging) and function quite differently. The invention of group I provides parallax between the images, allowing a stereoscopic image to be obtained. The invention of group II provides images from different visual field directions.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the search required for any one group is not inclusively required for any other, restriction for examination purposes as indicated is proper. Since the endoscope art is considered a "crowded" art in that an endoscope is limited to certain basic elements, a search for different and distinct features or process steps relating to these elements is burdensome for the examiner.

Art Unit: 3739

4. Upon election of **Invention II** above, this application contains claims directed to at least two of the following patentably distinct species of the claimed invention:

Species I: Figs. 46-48  
Species II: Figs. 55  
Species III: Figs. 56A-56B  
Species IV: Figs. 57  
Species V: Figs. 58A-58B  
Species VI: Figs. 59A-59B  
Species VIII: Figs. 60A-60B

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims appear to be generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

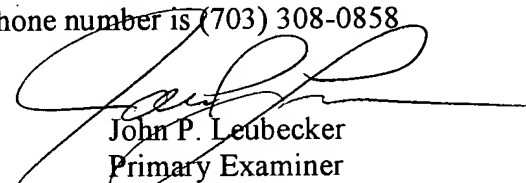
Art Unit: 3739

examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (703) 308-0951. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (703) 308-0994. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858



John P. Leubecker  
Primary Examiner  
Art Unit 3739

jpl  
January 6, 2003

***Election/Restrictions***

1. Newly submitted claims 64-70 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: these claims recite at least that the objective optical system receives beams from different visual field directions, as opposed to receiving beams having a parallax.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 64-70 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Objections***

2. Claims 2, 4 and 71 are objected to because of the following informalities: as to claim 2, line 4, "from" should be --form--; claim 4, line 3, "systems" should be --system--; claim 71, line 6, first occurrence of "an" should be --n--, claim 71, line 6, "parallel" should be --parallax--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 58, 60, 61 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 58, term “final image surface” lacks antecedent basis. In addition, “the plural images...made on the final image surface” lacks antecedent basis (plural images were previously mention but not ones that were made a final image surface).

As to claim 60, term “image taking means” lacks antecedent basis.

As to claim 61, term “final image surface” lacks antecedent basis. In addition, “the plural images...made on the final image surface” lacks antecedent basis (plural images were previously mention but not ones that were made a final image surface).

As to claim 63, terms “central parts”, “image taking surfaces” and “curved surfaces” all lack antecedent basis.

***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Jap. Pat. 4-16812 for the reasons set forth in numbered paragraph 6 of the previous Office Action, paper number 6.

As for the newly added limitation, the image transmitting optical system is longer than the objective optical system and is thus formed to be of a size larger than the other.

Art Unit: 3739

7. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Akui et al. (U.S. Pat. 5,577,991) for the reasons set forth in numbered paragraph 7 of the previous Office Action, paper number 6.

As for the newly added limitation, the image transmitting optical system is longer than the objective optical system and is thus formed to be of a size larger than the other.



Art Unit: 3302

Takahashi discloses the device as claimed except for specifying that the Petzval sum of the objective optical system is negative. Since the desirability to compensate for the Petzval sum between optical systems has been well established in the optics art, it would be obvious to the skilled artisan, as a matter of conventional optical design, to provide for a negative Petzval sum within the one optical system to compensate for a positive Petzval sum in another. The mere fact that Applicant chose the objective to be negative instead of the relay lens system would have been considered obvious design choice. In fact, it would appear from the predominantly positive lens structure of Takahashi's relay lens system that it would have a positive Petzval sum. Thus, by conventional optical design, it would be desirable to compensate this by making the objective system negative.

It is noted that from the Examiner's own knowledge of optical systems that objective lens systems that provide magnification/zoom functions generally tend to have a negative Petzval sum.

***Allowable Subject Matter***

8. Claims 8, 24 and 28 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.

Art Unit: 3302

9. Claims 16, 17 and 25-27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest an stereoendoscope including, *inter alia*, an objective optical system comprising a single rear lens group, specifically a positive lens unit, and a plurality of parallel front lens groups, specifically negative lens units, arranged symmetrically concentric about the central axis of the rear lens group.

### ***Response to Arguments***

11. Applicant's arguments filed February 24, 1997 have been fully considered but they are not persuasive.

Applicant's communication filed March 24, 1997 concerning a typographical error in the amendment filed February 24, 1997 has been received and noted.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Leubecker whose telephone number is (703) 308-0951 and fax number is (703)308-2864.

Serial Number: 08/404,890

Page 7

Art Unit: 3302

J. Leubecker  
November 14, 2003